

REMARKS

The Applicants request reconsideration of the rejection.

Claims 3-4 and 6-7 have been allowed.

Claims 1, 2, 5, and 8-10 are now pending.

Claims 1, 2, and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over King et al U.S. Patent No. 5,828,449 (King). The Applicants traverse as follows.

The invention is directed in principal part to the detection of the size of an object based on reflected light signals from both the detection object and a background panel having a mark. The size of the detection object is measured by the use of two electrical signals derived from scanning light reflected from the detection object arranged between the background panel and the scanning source, and from the mark on the background panel. The size of the detection object is determined by reference to the standard represented by the mark. Without the mark, detection of the object size according to the claimed invention, would not be possible.

In the rejection, the Examiner states that King does not disclose a mark on either surface 18 or surface 27, but that it is well known to arrange a detection object before a background that has some type of reference mark serving as a

standard for comparison, and refers to the example of a "mug shot" taken in which a suspect stands in front of a background having incremental marks that allow a person viewing the photograph to determine the suspect's height. The Examiner further asserts that the person of ordinary skill would obviously modify King by arranging objects 12 in front of a background having a mark as a standard in order to facilitate the determination of size.

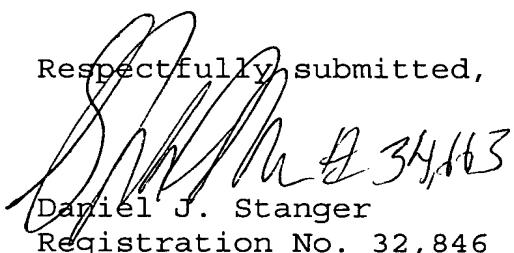
The allegedly *prima facie* case of obviousness fails, however, because King neither teaches nor suggests to determine the size of the measured solder balls in accordance with the limitations of the claimed invention. Although King does teach generally that the size and shape of the solder balls can be determined, the size determination is made in a wholly different manner than that claimed. In fact, King positively teaches away from the idea of using the background of the solder balls in the measurement. Note that King requires that the scanning source be adjusted so that the scanning light that hits the background is reflected away from the light detectors. Accordingly, a person of ordinary skill would never look to diverse art (such as the "art" of mug shot photography) to improve on the inspection system taught by King.

The rejected claims have been amended to require that the detection of size be based on signals obtained by signals electrically converting scanning light reflected from the background panel and the detection object, which further distinguishes the invention from King, whether taken individually or even in combination with any teachings of the mug shot photography field. Accordingly, it is believed that all claims patentably define over the prior art.

New claims 8-10 are directed to many of the same features of the patentable claims, but provide a different scope of protection for the invention.

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

Respectfully submitted,


Daniel J. Stanger
Registration No. 32,846

Attorney for Applicant(s)

MATTINGLY, STANGER & MALUR
1800 Diagonal Rd., Suite 370
Alexandria, Virginia 22314
Telephone: (703) 684-1120
Facsimile: (703) 684-1157
Date: August 8, 2003